

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	10/688,867
				Filing Date	October 17, 2003
				First Named Inventor	STELLACCI, Francesco
				Art Unit	
				Examiner Name	Not Yet Known
Sheet	1	of	5	Attorney Docket Number	P-8698-US

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A	US-6309580	10-30-01	Chou -	
	B	US-6114099	09-05-00	Liu	
	C	US-6020047	02-01-00	Everhart	
	D	US-5772905	06-30-98	Chou	
	E	US-5512131	04-30-96	Kumar	
	F	US-5079600	01-07-92	Schnur	
	G	US-2003/0080472	05-01-03	Chou	
	H	US-2003/0080471	05-01-03	Chou	
	I	US-2003/0068446	04-10-03	Mirkin	
	J	US-2003/0034329	02-20-03	Chou	
	K	US-2002/0167117	11-14-02	Chou	
	L	US-6444321	09-03-02	Arnebrandt	
	M	US-2002/0164604	11-07-02	Abbott	
		US-			
		US-			
		US-			
		US-			
		US-			

[illegible]

Examiner Signature	Date Considered
-----------------------	--------------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

The collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

DEC 05 2007

PTO/SB/08b (07-05)

Approved for use through 06/30/2008. OMB 0651-0031  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				<b>Complete if Known</b>	
				Application Number	10/688,867
				Filing Date	October 17, 2003
				First Named Inventor	STELLACCI, Francesco
(use as many sheets as necessary)				Art Unit	
				Examiner Name	Not Yet Known
Sheet	2	of	5	Attorney Docket Number	P-8698-US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (where appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	N	Amro et al., "Patterning Surfaces using tip-directed displacement and self-assembly", Langmuir, 16: 3006-3009, 2000	<input type="checkbox"/>
	O	Andre, et al., "Quantum Chemistry and Molecular Engineering of Oligomeric and Polymeric Materials for Optoelectronics", Chem. Rev. 91: 843-865, 1991	<input type="checkbox"/>
	P	Austin, et al., "Fabrication of nanocontacts for molecular devices using nanoimprint lithography", J. Vac. Sci. Technol/ 20(2):665-667, 2002.	<input type="checkbox"/>
	Q	Bashir, et al., "DNA-Mediated artificial nanobiostructures: State of the art and future directions", Superlattices and microstructures, 29(1): 1-16, 2001.	<input type="checkbox"/>
	R	Bruckbauer, et al., "Writing with DNA and protein using a nonpipet for controlled delivery", J. Am. Chem. Soc. 124:8810-8811, 2002.	<input type="checkbox"/>
	S	Chappert, et al., "Planar patterned magnetic media obtained by ion irradiation" Science, 280: 1919-1922, 1998.	<input type="checkbox"/>
	T	Chen et al., "Nanofabrication: Conventional and nonconventional methods", Electrophoresis, 22: 187-207, 2001.	<input type="checkbox"/>
	U	Chou et al., "Ultrafast and direct imprint of nanostructures in silicon", Nature, 417:835-837, 2002.	<input type="checkbox"/>
	V	Demers et al., "Orthogonal assembly of nanoparticle building blocks and dip-pen nanolithographically generated templates of DNA", Angew. Chem. Int. Ed. 40:3071-3073, 2001.	<input type="checkbox"/>
	W	Demers et al., "Direct patterning of modified oligonucleotides on metals and insulators by dip-pen nanolithography", Science, 296: 1836-1838, 2002.	<input type="checkbox"/>
	X	Demers et al., "Combinatorial templates generated by dip-pen nanolithography for the formation of two-dimensional particle arrays", Angew. Chem. Int. Ed. 40(16): 3069-3071, 2001.	<input type="checkbox"/>

Examiner Signature	Date Considered
--------------------	-----------------

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

The collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

DEC 05 2007

PTO/SB/08b (07-05)

Approved for use through 08/30/2006. OMB 0551-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>		Application Number	10/688,867
		Filing Date	October 17, 2003
		First Named Inventor	STELLACCI, Francesco
		Art Unit	
(use as many sheets as necessary)		Examiner Name	Not Yet Known
Sheet	3 of 5	Attorney Docket Number	P-8698-US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (where appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	y	Folkers et al., "Phase behaviour of two-component self-assembled monolayers of alkanethiolates on gold", J. Phys. Chem. 98:563-571, 1994.	<input type="checkbox"/>
	z	Fuierer et al., "Patterning mesoscale gradient structures with self-assembled monolayers and scanning tunneling microscopy based replacement lithography", Adv. Mater. 14(2): 154-157, 2002.	<input type="checkbox"/>
	a	Gonsalves et al., "Organic-inorganic nanocomposites: unique resists for nanolithography", Adv. Mater. 13(10): 703-714, 2001.	<input type="checkbox"/>
	b	Gorman et al., "Chemically well-defined lithography using self-assembled monolayers and scanning tunneling microscopy in nonpolar organothiol solutions", Langmuir, 16: 6312-6316, 2000.	<input type="checkbox"/>
	c	Harvey et al., "antisense and antigene properties of peptide nucleic acids", Science, 258: 1481-1485, 1992.	<input type="checkbox"/>
	d	Heller et al., "DNA microarray technology: devices, systems and applications", Annu. Rev. Biomed. Eng. 4: 129-153, 2002.	<input type="checkbox"/>
	e	Hoepfner et al., "Metal nanoparticles, nanowires and contact electrodes self-assembled on patterned monolayer templates- a bottom-up chemical approach", Adv. Mater. 14: 1036-1041, 2002.	<input type="checkbox"/>
	f	Hong et al., "Multiple ink nanolithography: toward a multiple=pen nano-plotter", Science, 286: 523-525, 1999.	<input type="checkbox"/>
	g	Joachim et al., "Is there a minimum size and a maximum speed for a nanoscale amplifier?", Annals. NYAS Online, 852: 243-256, 1998.	<input type="checkbox"/>
	h	Johnson et al., "Ordered mesoporous polymers of tunable pore size from colloidal silica templates", Science, 283: 963-965, 1999.	<input type="checkbox"/>
	i	Lee et al., "Protein nanoarrays generated by dip-pen nanolithography", Science, 295:1702-1705, 2002.	<input type="checkbox"/>

Examiner Signature	Date Considered
--------------------	-----------------

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

The collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

5. Dec. 2007 8:09

PEARL COHEN ZEDEK LATZER

**DEC 05 2007**

No. 4198 P. 8/35

PTO/SB/08b (07-05)

Approved for use through 06/30/2006. OMB 0851-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/688,867
				Filing Date	October 17, 2003
				First Named Inventor	STELLACCI, Francesco
				Art Unit	
				Examiner Name	Not Yet Known
Sheet	4	of	5	Attorney Docket Number	P-8698-US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (where appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	j	Liu et al., "Production of nanostructures of DNA on surfaces", NANO Letters, 2(8): 863-867, 2002.	<input type="checkbox"/>
	k	Liu et al., "Three-dimensional nanostructure construction via nanografting: positive and negative pattern transfer", NANO Letters, 2(9): 937-940, 2002.	<input type="checkbox"/>
	l	Liu et al., "Nanofabrication of self-assembled monolayers using scanning probe lithography", Acc. Chem. Res. 33: 457-466, 2000.	<input type="checkbox"/>
	m	Maoz et al., "Constructive nanolithography, inert monolayers as patternable templates for in-situ nanofabrication of metal-semiconductor-organic surface structures - a generic approach", Adv. Mater. 12(10): 725-731, 2000.	<input type="checkbox"/>
	n	Maynor et al., "Au "Ink" for AFM "dip-pen" nanolithography", Langmuir, 17: 2575-2578, 2001.	<input type="checkbox"/>
	o	Meiiosh et al., "Ultrahigh-density nanowire lattices and circuits", Science, 300: 112-115, 2003.	<input type="checkbox"/>
	p	Nyffenegger et al., "Nanometer-scale surface modification using the scanning probe microscope: progress since 1991" Chem. Rev. 97: 1195-1230, 1997.	<input type="checkbox"/>
	q	Park et al., "Array-based electrical detection of DNA with nanoparticles probes", Science, 295: 1503-1506, 2002.	<input type="checkbox"/>
	r	Piner et al., "Dip-pen nanolithography", Science, 283: 661-663, 1999.	<input type="checkbox"/>
	s	Schwartz et al., "Molecular transport from an atomic force microscope tip: a comparative study of dip-pen nanolithography", Langmuir, 18: 4041-4046, 2002.	<input type="checkbox"/>
	t	Stutzmann et al., "Self-aligned, vertical-channel, polymer field-effect transistors", Science, 299: 1881-1884, 2003.	<input type="checkbox"/>

Examiner Signature	Date Considered
--------------------	-----------------

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

The collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

DEC 05 2007

PTO/SB/08b (07-05)

Approved for use through 06/30/2006. OMB 0651-0031  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO				<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				Application Number	10/688,867
				Filing Date	October 17, 2003
				First Named Inventor	STELLACCI, Francesco
				Art Unit	
(use as many sheets as necessary)				Examiner Name	Not Yet Known
Sheet	5	of	5	Attorney Docket Number	P-8698-US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (where appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	u	Sun et al., "nanoscale molecular patterns fabricated by using scanning near-field optical lithography", J. Am. Chem. Soc., 124 (11): 2414-2415, 2002.	<input type="checkbox"/>
	v	Taton et al., "The DNA-mediated formation of supramolecular mono and multilayered nanoparticle structures", J. Am. Chem. Soc. 122: 6305-6306, 2000.	<input type="checkbox"/>
	w	Taton et al., "Scanometric DNA array detection with nanoparticle probes", Science, 289: 1757-1760, 2000.	<input type="checkbox"/>
	x	Taton et al., "Two-color labeling of oligonucleotide arrays via size-selective scattering of nanoparticle probes", J. Am. Chem. Soc. 123: 5164-5165, 2001.	<input type="checkbox"/>
	y	Watterson et al., "Practical physical aspects of interfacial nucleic acid oligomer hybridization for biosensor design", Analytica Chimica Acta, 469: 115-127, 2002.	<input type="checkbox"/>
	z	Xia et al., "Unconventional methods for fabricating and patterning nanostructures", Chem. Rev. 99: 1823-1848, 1999.	<input type="checkbox"/>
	AA	Xia et al., "Soft lithography", Annu. Rev. Mater. Sci., 28: 153-184, 1998.	<input type="checkbox"/>
	AB	Mirkin et al., "A DNA-based method for rationally assembling nanoparticles into macroscopic materials", Nature, Vol. 382, 15-AUG-1996, pages 607-609.	<input type="checkbox"/>
	AC	Gooding et al., "Self-assembled monolayers into the 21 <sup>st</sup> century: Recent advances and application", Electroanalysis 2003, vol. 15, No. 2, pages 81-96.	<input type="checkbox"/>
	AD	Falconnet et al., "A novel approach to produce protein nanopatterns by combining nanoimprint lithography and molecular self-assembly", Nano Letters 2004, Vol. 4, No. 10, pages 1909-1914.	<input type="checkbox"/>
			<input type="checkbox"/>

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered.  
 Include copy of this form with next communication to applicant.  
 † Applicant's unique citation designation number (optional). ‡ Applicant is to place a check mark here if English language Translation is attached.

The collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1460, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2